





Searching for PHRASE dynamically cusomizing adjusting modifying user web pattern behavior history preference.

Restrict to: Header Title Order by: Citations Hubs Usage Date Try: Amazon B&N Google (RI) Google (Web) CSB DBLP

No documents match Boolean query. Trying non-Boolean relevance query. 1000 documents found. Only retrieving 250 documents (System busy - maximum reduced). Retrieving documents... Order: relevance to query.

Letizia: An Agent That Assists Web Browsing - Lieberman (1995) (Correct) (167 citations) and Letizia's search. Such recommendations are dynamically recomputed when anything changes or at the MA, USA lieber@media.mit.edu Abstract Letizia is a user interface agent that assists a user browsing the Letizia: An Agent That Assists Web Browsing Henry Lieberman Media Laboratory lieber.www.media.mit.edu/people/lieber/Lieberary/Letizia/Letizia-AAAI/Letizia.ps

Prefetching Links on the WWW - Jiang, Kleinrock (1997) (Correct) (10 citations) we derived to determine the prefetch threshold dynamically based on the system load, capacity and the browsed differs from user to user, it is hard to adjust the size of the time window. In the WWW, after an some of them before they are requested by the user. Our prefetch scheme includes two algorithms: the millennium.cs.ucla.edu/~jiang/Research/Publication/prefetch.ps

Applying The Proactor Pattern To High-Performance Web Servers - James Hu (1998) (Correct) (4 citations) by an I/O strategy. JAWS ability to dynamically bind to a particular concurrency strategy and a perfect hash table [14] that maps abbreviated user login names (e.g. schmidt) to user home Applying The Proactor Pattern To High-Performance Web Servers James Hu Jxh@cs.wustl,edu Irfan 128.252.165.44/~schmidt/PDCS-98.ps.gz

History-Rich Tools for Social Navigation - Wexelblat (1998) (Correct) (1 citation) the Web page, or typing in a URL, the trails view adjusts. It always shows all and only the trails defining and using interaction history as part of a user interface for social navigation that is, using When we open a word processing document or visit a web site it is as though we were the first and only lcs.www.media.mit.edu/courses/agents98/hcic.ps

Materializing the Web - De Rosa, Catarci, locchi, Nardi.. (1998) (Correct) (4 citations) ability to answer queries relies on methods for dynamically accessing the information sources. A fully from Web sites and making them accessible to the user through a database query paradigm. The basic idea Materializing the Web Mattia De Rosa, Tiziana Catarci, Luca locchi, ftp.dis.uniroma1.it/pub/iocchi/publications/web-coopis98.ps.gz

Component Configurer: A Design Pattern for Component-Based.. - Rosa, Silva (1997) (Correct) ffl The application being developed must be dynamically configurable to satisfy the application configuration is presented as the process of modifying or extending an application without suspending Agenda Manager. Agenda Session is associated with a user and interacts with an Agenda Manager. ffl Users albertina.inesc.pt/~ars/ps/europlop97-1.ps

Learning from History for Behavior-Based Mobile Robots in.. - Michaud, Mataric (1998) (Correct) (10 citations) algorithm provides a memory-based approach to dynamically adapt the selection of these behaviors situations where the designer could not know or adjust the behaviors according to a priori knowledge of an option is tried frequently, making it harder to modify it and to change strategies if the option becomes www.gel.usherb.ca/michaudf/papers/ARML.ps.gz

Learning to Order Things - Cohen, Schapire, Singer (1998) (Correct) (15 citations) each round, the weights of the ranking experts are adjusted so that experts producing preference functions obtained by regression. Suppose, however, that a user is presented with an ordered list of email is a domain-specific query expansion strategy for a web search engine. 1 Introduction Work in inductive www.cs.bilkent.edu.tr/~gural/CS550/cohenrobyoram.ps

Potential and Limits of Web Prefetching Between Low-Bandwidth .. - Quinn Jacobson (1998) (Correct)



patterns change over time and the history should dynamically adapt. Both of these issues are solved by what factor to the **Web** access latency perceived by the **users**. In this paper, we investigate one approach to www.cache.ja.net/events/workshop/28/cao-prepush.ps

An Adaptive Interactive Agent for Route Advice - Rogers, Fiechter, Langley (1995) (Correct) (2 citations) more flexible model representations, such as **adjusting** the weight vector based on task current route options and two menus, Route" and "**Modify**. The current routes are presented in terms of flexible enough to deliver satisfactory routes to **users** who have different **preferences**. Current systems www.isle.org/~langley/papers/route.aa99.ps

<u>Tuple-Level Analysis for Identification of Interesting Patterns - Bing Liu (1996) (Correct)</u> are actually useless or uninteresting to the **user**. But because of the huge number of **patterns**, it Analysis for Identification of Interesting **Patterns** Bing Liu, Wynne Hsu, Hing-Yan Lee and www.comp.nus.edu.sg/~liub/publications/tuple.rep.ps

The AT&T Internet Difference Engine: Tracking and.. - Douglis, Ball, Chen, .. (1998) (Correct) (1 citation) fixed, it would be possible to vary them **dynamically** based on **user** access **patterns** (e.g.degrading who do so for personal use. In any event, **modifying** HtmlDiff to use frames to display the old and at phenomenal rates, overwhelming the ability of **users** to keep up with the available data. Second, the www.research.att.com/~douglis/papers/aide.ps.gz

Human Performance on Clustering Web Pages: A.. - Macskassy, Banerjee.. (1998) (Correct) (5 citations) user navigate through the retrieved results and dynamically clusters based on this navigation. A K-means 1992 Cutting, Karger, Pederson 1993)lets the user navigate through the retrieved results and York, August 1998 1 Human Performance on Clustering Web Pages: A Preliminary Study Sofus A. Macskassy, www.cs.rutgers.edu/~davison/pubs/kdd98.ps

Variations on the Visitor Pattern - Nordberg, III (1996) (Correct) (2 citations)

One difficulty in applying the visitor **pattern** is **modifying** every concrete visitor whenever a new concrete depends on the types of two items. A modern **user** interface provides greater feedback to the **user** 1 Variations on the Visitor **Pattern** Martin E. Nordberg III Quintessoft Engineering, www.cs.wustl.edu/~schmidt/PLoP-96/nordberg.ps.gz

Designing Conversational Interfaces With Multimodal.. - Bers, Miller, Makhoul (Correct)
6 wheels, and then displaying the order form. By adjusting the duration of these time-outs one can tailor that combines pen and speech input from the on-line user in a web-browser. VoiceLog is a voice-enabled pen and speech input from the on-line user in a web-browser. VoiceLog is a voice-enabled connection to www.nist.gov/speech/proc/darpa98/ps/demo10.ps

WebWatcher: Machine Learning and Hypertext - Thorsten Joachims (1995) (Correct) (2 citations)

Web is growing quickly and addresses more and more users. Although a lot of information is available in WebWatcher: Machine Learning and Hypertext Thorsten mobile.csie.ntu.edu.tw/~yjhsu/courses/u1760/papers/webwatcher.ps.gz

<u>Using the Web as a Survey Tool: Results from the Second WWW User.. - Pitkow (1995) (Correct) (5 citations)</u> and processes the surveys to only require minor **adjust**ments between questionnaires. Towards this end, we **Web** as a Survey Tool: Results from the Second WWW **User** Survey James E. Pitkow &Margaret M. Recker ftp.cc.gatech.edu/pub/groups/gvu/tr/94-40.ps.Z

Genomic Regulation Modeled As A Network With Basins Of Attraction - Wuensche (1998) (Correct) (6 citations)

balance between stable on/off regions and **dynamically** changing regions. This can be visualized as a Middway in the space-time **pattern** the rules were **adjusted** to set canalizing inputs at 52% resulting in each element. The **behavior** of such complex feedback **webs** is difficult to treat analytically by classical www.santafe.edu/~wuensch/h_att4.ps.gz

Book Recommending Using Text Categorization with Extracted.. - Mooney (1998) (Correct) (3 citations) the empty set. During testing, the system simply adjusts this default probability to account for the systems suggest documents, items, and services to users based on learning a profile of the user from information about items gathered from the web using simple information extraction techniques.

dynamically cusomizing adjusting modifying user web pattern behavior history preference... Page 3 of 3

ftp.cs.utexas.edu/pub/mooney/papers/libra-textcat98.ps.gz

Mobisaic - Voelker, Bershad (1995) (Correct) variable references, making it straightforward to **modify** a **Web** client to take advantage of the features of World Wide **Web** information system designed to serve **users** in a mobile wireless computing environment. ftp.cs.washington.edu/tr/1995/04/UW-CSE-95-04-01.PS.gz

First 20 documents Next 20

Try your query at: <u>Amazon Barnes & Noble Google (RI) Google (Web) CSB DBLP</u>

CiteSeer - <u>citeseer.org</u> - <u>Terms of Service</u> - <u>Privacy Policy</u> - Copyright © 1997-2002 <u>NEC Research Institute</u>



CiteSeer Find: dynamically providing information





Searching for PHRASE dynamically providing information user cusomizing adjusting modifying user web pattern.

Restrict to: Header Title Order by: Citations Hubs Usage Date Try: Amazon B&N Google (RI) Google (Web) CSB DBLP

No documents match Boolean query. Trying non-Boolean relevance query. 1000 documents found. Only retrieving 250 documents (System busy - maximum reduced). Retrieving documents... Order: relevance to query.

Mobisaic - Voelker, Bershad (1995) (Correct)

environments [Just as standard UNIX shells provide environment variables to customize applications Mobisaic An Information System for a Mobile Wireless Computing World Wide Web information system designed to serve users in a mobile wireless computing environment. ftp.cs.washington.edu/tr/1995/04/UW-CSE-95-04-01.PS.gz

WebWatcher: Machine Learning and Hypertext - Thorsten Joachims (1995) (Correct) (2 citations) We think this is important because WebWatcher may provide imperfect advice, and because WebWatcher might We also explore the possibility of extracting information from the structure of hypertext. We introduce Web is growing quickly and addresses more and more users. Although a lot of information is available in mobile.csie.ntu.edu.tw/~yjhsu/courses/u1760/papers/webwatcher.ps.gz

A High-Level and Flexible Framework for Implementing.. - Dewan, Choudhary (1992) (Correct) (38 citations) these rules. The framework allows users to be dynamically added and removed from a multi-user session, helping users coordinate their interaction, and providing concurrency and access control [19,48]As a which allow users and applications to exchange information a set of default collaboration rules designed ftp.cs.unc.edu/pub/users/dewan/papers/framework.ps.Z

Using the Web as a Survey Tool: Results from the Second WWW User.. - Pitkow (1995) (Correct) (5 citations) browsing usage, and questions for Web information providers. In addition, we added an additional, questions, browsing usage, and questions for Web information providers. In addition, we added an Web as a Survey Tool: Results from the Second WWW User Survey James E. Pitkow &Margaret M. Recker ftp.cc.gatech.edu/pub/groups/gvu/tr/94-40.ps.Z

Letizia: An Agent That Assists Web Browsing - Lieberman (1995) (Correct) (167 citations) and Letizia's search. Such recommendations are dynamically recomputed when anything changes or at the be the user's perspective. Upon request, Letizia provides recommendations for further action on the user's growth of the World Wide Web and other on-line information sources has made critical the need for some lieber.www.media.mit.edu/people/lieber/Lieberary/Letizia/Letizia-AAAI/Letizia.ps

Web Based Parallel/Distributed Medical Data Mining.. - Kargupta, Stafford.. (Correct) presents information to the user interface, and provides feedbacks to the agents from the user. PADMA has Agent Application WWW Metadata Facilitator Information Extraction Information Extraction Query The Web-Based Disk Disk Dm Dm Sql Query Result User Request User Interface Agent Agent Intelligent www.eecs.wsu.edu/~hillol/pubs/padmaMed.ps

Book Recommending Using Text Categorization with Extracted.. - Mooney (1998) (Correct) (3 citations) extracted from web pages at Amazon.com. 1 Users provide 1-10 ratings for a selected set of training Using Text Categorization with Extracted Information Raymond J. Mooney Paul N. Bennett Department systems suggest documents, items, and services to users based on learning a profile of the user from ftp.cs.utexas.edu/pub/mooney/papers/libra-textcat98.ps.gz

Tuple-Level Analysis for Identification of Interesting Patterns - Bing Liu (1996) (Correct) interesting patterns. The user is first asked to provide his/her expected patterns according to his/her Hing-Yan Lee and Lai-Fun Mun Department of Information Systems and Computer Science National are actually useless or uninteresting to the user. But because of the huge number of patterns, it www.comp.nus.edu.sg/~liub/publications/tuple.rep.ps

Component Configurer: A Design Pattern for Component-Based.. - Rosa, Silva (1997) (Correct)



ffl The application being developed must be **dynamically** configurable to satisfy the application ad-hoc dynamic configuration. It aims at **providing** a configuration of components with state using connections. This description can include **information** such as component mapping to the existing albertina.inesc.pt/~ars/ps/europlop97-1.ps

Materializing the Web - De Rosa, Catarci, locchi, Nardi.. (1998) (Correct) (4 citations) ability to answer queries relies on methods for **dynamically** accessing the **information** sources. A fully of queries, the proposed approach can effectively **provide** the desired **information**. 1 Introduction The focusing on the internal representation of **information** and on the process for analysing **Web** sites ftp.dis.uniroma1.it/pub/iocchi/publications/web-coopis98.ps.gz

Intelligent Interface Agents for Intelligent Environments - Brown, Santos, Jr., al. (1998) (Correct) the interface agent's ability to correctly and **dynamically** model **user** intent for the purpose of assisting The human's strength lies in his/her ability to **provide** guidance and insight into the **information** that **user** must attempt to base decisions on relevant **information** within the environment. However, due to the www.afit.af.mil/Schools/EN/Al/Papers/Conference/smb-aaai98ss-ie.ps.gz

The AT&T Internet Difference Engine: Tracking and.. - Douglis, Ball, Chen,.. (1998) (Correct) (1 citation) fixed, it would be possible to vary them **dynamically** based on **user** access **patterns** (e.g.degrading Bookmarks [13]With the exception of **information provided** explicitly by the content **provider** in a Smart change in the ways in which individuals obtain **information**. First, the volume of content available on the www.research.att.com/~douglis/papers/aide.ps.gz

<u>Knowledge-Based Navigation of Complex Information Spaces - Burke, Hammond, Young (1996)</u> (Correct) (12 citations)

is to employ assisted browsing. The user is provided with standard browsing and/or retrieval Knowledge-Based Navigation of Complex Information Spaces Robin D. Burke, Kristian J. Hammond & about an information space to be able to help a user navigate through it. The user not only comes away ftp.cs.uchicago.edu/pub/users/burke/findme-aaai-96.ps.Z

INTELLIGENT AGENTS ON THE INTERNET: Fact, Fiction, and Forecast - Etzioni, Weld (1995) (Correct) (51 citations)

agent's actions are not scripted it is able to **dynamically** choose which actions to invoke, and in what is intelligent agents. But what are they? We **provide** a survey showing the myriad ways in which the our ability to generate, deliver, and store **information**. Unfortunately, our tools for locating, ftp.cs.washington.edu/pub/ai/ieee-expert.ps.Z

Prefetching Links on the WWW - Jiang, Kleinrock (1997) (Correct) (10 citations) we derived to determine the prefetch threshold **dynamically** based on the system load, capacity and the receiving the response from the server. We then **provide** this **information** to the **user** by translating it driven by trace files show that using access **information** from the client can achieve high successful millennium.cs.ucla.edu/~jiang/Research/Publication/prefetch.ps

Access as a Means of Configuring Cooperative Interfaces - Gareth Smith (Correct) of Objects and Run-time issues Many applications **dynamically** create interface objects and it is feasible use all or part of this material is granted **provided** that the copies are not made or distributed for of such views permits a control over sharing of **information**. Patterson [14] states "The essence of www.buva.sowi.uni-bamberg.de/ps-Sammlung/literatur/lancaster/CSCW.6.93.ps.Z

Design of The DOE2000 Electronic Notebook - Lbnl Components (2000) (Correct) tool that reads the database schema and **dynamically** generates the layout of the input and display remote experimentation and collaboration. Page 5 **providing** full support for browsing, searching, and Sonia R. Sachs 2 Carla M. Dal Sasso Freitas 3 **Information** and Computing Sciences Division Lawrence www-itg.lbl.gov/~ssachs/resume/../doe2000/en.doe2000.design.ps

Reuse Library Interoperability and the World Wide Web - Shirley Browne (1997) (Correct) (6 citations) a single library, their own, and most strived to **provide** the most general possible services to appeal to countries. Data models to permit the sharing of **information** The first standard proposed by the RIG was a possible services to appeal to a broad community of **users**. The ASSET program, initiated byt he Advanced www.netlib.no/netlib/srwn/srwn20.ps

Feature subset selection in text-learning - Mladenic (1998) (Correct) (8 citations) measure called Odds ratio that is known from **information** retrieval. 1 Introduction In propositional given on real-world data collected from **Web users** shows that characteristics of the problem domain comparison given on real-world data collected from **Web users** shows that characteristics of the problem www.cs.cmu.edu/~TextLearning/pww/papers/PWW/pwwECML98.ps.gz

Intelligent Filtering; Based on Keywords Only? - Lantz, Kilander (1995) (Correct) (1 citation) minimizing the burden for the user who has to provide and maintain long-term queries. KEYWORDS: Text queries. KEYWORDS: Text classification, information filtering, computer-mediated communication, fk@dsv.su.se ABSTRACT Empirical studies on users of Usenet News indicate that features other than www.dsv.su.se/~fk/if_Doc/chi95.ps.Z

First 20 documents Next 20

Try your query at: <u>Amazon Barnes & Noble Google (RI) Google (Web) CSB DBLP</u>

CiteSeer - citeseer.org - Terms of Service - Privacy Policy - Copyright © 1997-2002 <u>NEC Research Institute</u>

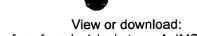


Discovering And Mining User Web-Page Traversal Patterns (2001) (Make Corrections) Behzad Mortazavi-Asl



Home/Search Bookmark Context

Related



fas.sfu.ca/pub/cs/...tazavAsIMSc.ps.gz
Cached: PS.gz PS PDF DjVu Image Update Help

From: fas.sfu.ca/pub/cs/theses/2001/ (more)
Homepages: B.Mortazavi-Asl HPSearch (Update Links)

(Enter summary)

Rate this article: 1 2 3 4 5 (best)

Comment on this article

Abstract: As the popularity of WWW explodes, a massive amount of data is gathered by Web servers in the form of Web access logs. This is a rich source of information for understanding Web user surfing behavior. Web Usage Mining, also known as Web Log Mining, is an application of data mining algorithms to Web access logs to find trends and regularities in Web users' traversal patterns. The results of Web Usage Mining have been used in improving Web site design, business and marketing decision support,... (Update)

Active bibliography (related documents): More All

- 0.9: Intelligent Rollups in Multidimensional OLAP Data Gayatri Sathe Sunita (Correct)
- 0.7: An efficient algorithm for Web usage mining Masseglia, Poncelet, Cicchetti (1999) (Correct)
- 0.6: A Prediction Model for User Access Sequences Enrique Frias-Martinez Computer (Correct)

Similar documents based on text: More All

- 0.9: PrefixSpan: Mining Sequential Patterns Efficiently by.. Jian Pei Jiawei (Correct)
- 0.8: Mining Sequential Patterns with Constraints in Large Databases Pei, Han, Wang (Correct)
- 0.6: Mining On-line Newspaper Web Access Logs Batista, Silva (2002) (Correct)

BibTeX entry: (Update)

```
@misc{ mortazavi-asl-discovering,
  author = "Behzad Mortazavi-Asl",
  title = "Discovering And Mining User Web-Page Traversal Patterns",
  url = "citeseer.nj.nec.com/mortazavi-asl01discovering.html" }
```

Citations (may not include all citations):

- 678 Mining Association Rules between Sets of Items in Large Data.. Agrawal, Imielinski et al. 1993
- 293 Data Cube: A Relational Aggregation Operator Generalizing Gr.. Gray, Bosworth et al. 1996
- 240 Mining Sequential Patterns Agrawal, Srikant 1995
- 212 From Data Mining to Knowledge Discovery: An Overview (context) Fayyad, Piatetsky-Shapiro et al. 1996
- 112 Mining Sequential Patterns: Generalizations and Performance .. Srikant, Agrawal 1996
- 88 The KDD Process for Extracting Useful Knowledge from Volumes.. (context) Fayyad, Piatetsky-Shapiro et al. 1996
- 71 Discovering generalized episodes using minimal occurrences Mannila, Toivonen 1996
- 70 Data Preparation for Mining World Wide Web Browsing Patterns Cooley, Mobasher et al. 1999
- 62 Web Mining: Information and Pattern Discovery on the World W., Cooley, Mobasher et al. 1997
- 61 Line Analytical Processing) to User-analysts: An IT Mandate (context) Codd, On- 1993
- 58 From User Access Patterns to Dynamic Hypertext Linking (context) Yan, Jacobsen et al. 1996
- 45 DBMiner: A System for Mining Knowledge in Large Relational D.. Han, Fu et al. 1996
- 43 Web Usage Mining: Discovery and Application of Usage Pattern.. Srivastava, Cooley et al. 2000
- 40 Knowledge Discovery from Users Web-Page Navigation Shahabi, Zarkesh et al. 1997
- 28 Discovery-driven Exploration of OLAP Data Cubes Sarawagi, Agrawal et al. 1998
- 26 Data Mining of User Navigation Patterns Borges, Levene 2000
- 22 Searching for structure in multiple streams of data Oates, Cohen 1996
- 18 Efficient Data Mining for Path Traversal Patterns Chen, Park et al. 1998
- 16 FreeSpan: Frequent Pattern-Projected Sequential Pattern Mini.. (context) Han, Pei et al. 2000
- 16 Web Mining Research: A Survey Kosala, Blockheel 2000
- 16 Discovering Web Access Patterns and Trends by Applying OLAP .. Zaane, Xin et al. 1998
- 15 DBMiner: A System for Data Mining in Relational Databases an.. Han, Chiang et al. 1997
- 14 Web Usage Mining: Discovery and Application of Interesting P.. Cooley 2000
- 13 Characterizing Browsing Behaviors on the World Wide Web (context) Catledge, Pitkow 1995





- 12 Mining Access Patterns Efficiently from Web Logs Pei, Han et al. 2000
- 11 PrefixSpan: Mining Sequential Patterns Efficiently by Prefix.. Han, Pei et al. 2001
- 10 Speedtracer: A web usage mining and analysis tool (context) Wu, Yu et al. 1998
- 10 Memory Placement Techniques for Parallel Association Mining Parthasarathy, Zaki et al. 1998
- 8 Fast Algorithms for Mining Generalized Association Rules (context) Agrawal, Srikant 1994
- 8 Scalable Data Mining for Rules (context) Zaki 1998
- 7 The Common Logfile Format (context) Luotonen 1995
- 7 An Overview of Data Warehouse and OLAP Technology (context) Chaudhuri, Dayal 1997
- 5 The Psp Approach for Mining Sequential Patterns Massegila, Cathala et al. 1998
- 5 Data Mining for Association Rules and Sequential Patterns (context) Adamo 2001
- 4 Using Data Mining Techniques on Web Access Logs to Dynamical.. Masseglia, Poncelet et al. 1999
- 4 Parallel Sequence Mining on Shared-Memory Machines Zaki 2000
- 4 User-Adaptive Exploration of Multidimensional Data (context) Sarawagi 2000
- 3 A Heuristic to Capture Longer User Web Navigation Patterns Borges, Levene 2000
- 2 Web Usage Mining: How to Efficiently Manage new Transactions.. (context) Masseglia, Poncelet et al. 2000
- 2 An Efficient Algorithm for Web Usage Mining Masseglia, Poncelet et al. 1999
- 2 Hits and Misses: A Year Watching the Web (context) - Cumming 1997
- 2 Explaining Differences in Multidimensional Aggregates (context) Sarawagi 1999
- 1 Navigation Pattern Discovery from Internet Data (context) pur, hth et al. 1999
- 1 Discovering Frequent Episodes in Segunces (context) Mannila, Toivonen et al. 1995
- 1 Interactive Investigation of OLAP Cubes (context) Sarawagi, Sathe et al. 2000
- 1 Efficient Discovery of Interesting Statements in Databases (context) Klsgen 1995
- 1 Resource and Knowledge Discovery from the Internet and Multi.. (context) Zaane 1999

Documents on the same site (http://fas.sfu.ca/pub/cs/theses/2001/): More
Qourum Based Total Order Group Communication System - Ranaweera (1999) (Correct)
Mining The Top-K Frequent Itemset With Minimum Length M - Cong (2001) (Correct)
Enhancing Information Visualization with Motion - By Linda Ruth (2001) (Correct)

Online articles have much greater impact More about CiteSeer Add search form to your site Submit documents Feedback

CiteSeer - citeseer.org - Terms of Service - Privacy Policy - Copyright © 1997-2002 NEC Research Institute